

IN THE DRAWINGS

Replacement drawings including missing figures 2C, 2D and 3 are enclosed.

Attachment: Replacement Sheets

REMARKS

This response intended as a full and complete response to the non-final Office Action mailed December 7, 2004. In the Office Action, the Examiner notes that claims 1-35 are pending and rejected. By this response claims 1-5, 8-17, and 20-26 are amended, and claims 6-7, 18-19, and 27-35 continue unamended.

In view of both the amendments presented above and the following discussion, the Applicant submits that none of the claims now pending in the application are anticipated under the provisions of 35 U.S.C. §102.

It is to be understood that the Applicant, by amending the claims, does not acquiesce to the Examiner's characterizations of the art of record or to the Applicant's subject matter recited in the pending claims. Further, the Applicant is not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant responsive amendments.

OBJECTIONS

Drawings

The Examiner has objected to the drawings filed on 9 July 2001 because they do not include Figures 2C, 2D, and 3. Corrected drawing sheets in compliance with 37C.F.R. 1.121(d) are submitted herewith.

The Applicant has inadvertently omitted to file FIGs. 2C, 2D, and 3 at the time of filing of the application. However, the Applicant has provided replacement sheets of FIGs. 2C, 2D, and 3 in response to the Examiner's objection. Support for FIG. 2C may be found in the Applicant's specification beginning on page 8, paragraphs 32-37. Support for FIG. 2D may be found in the Applicant's specification beginning on page 10, paragraph 38, and support for FIG. 3 may be found beginning on page 10, paragraph 39. The Applicant submits that the replacement sheets for FIGs. 2C, 2D, and 3 included herewith are fully supported by the specification and do not add any new subject matter. Therefore the Applicant respectfully requests that the objection be withdrawn.

REJECTIONS

35 U.S.C. §102

Claims 1-35

The Examiner has rejected claims 1-35 under 35 U.S.C. §102(e) as being anticipated by Kwan (US 2003/0112796) (hereinafter "Kwan"). The Applicant respectfully traverses the rejection.

The Applicant's independent claim 1 (and similarly independent claims 13, 25, 26 and 27) recites:

"A method of processing a sequence of audio samples, each of said samples being stored within a respective packet, said method comprising
retrieving a packet from an input buffer;
determining pitch associated with audio information contained within said packet;
determining whether a second packet of said audio samples has arrived at said input buffer; and
adapting the pitch of said audio information within said retrieved packet in an instance where said second packet has not timely arrived." (emphasis added).

"Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim" (Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)) (emphasis added). The Kwan reference fails to disclose each and every element of the claimed invention, as arranged in the claim.

The Kwan reference discloses

A lost packet recovery engine is implemented whereby missing voice is filled with synthesized voice using the linear predictive coding model of speech. The voice is modelled using the pitch and spectral information from digital voice samples received prior to the lost packets. The algorithm uses previous digital voice samples or a parametric representation thereof, to estimate the contents of lost packets when they occur. Using the parameters determined from the voice analysis, one frame of voice is synthesized 201. (see Kwan, paragraphs 0225-0230).

The Applicant's invention is different from the teachings of the Kwan reference. That is, the Kwan reference fails to teach, or even suggest, "adapting the pitch of said audio information within said retrieved packet in an instance where said second packet has not timely arrived."

Support for the Applicant's invention may be found in the Applicant's specification illustratively in paragraph [0033]. For example,

Since third voice packet 206 has illustratively not arrived, time scaling will be implemented on second voice packet 204. Second voice packet 204 will be "expanded" to compensate for the delay in third voice packet's 206 arrival. Specifically, the pitch of the fundamental frequency of the voice conveyed by this product will be reduced or expanded in a manner that tends to avoid perceptually changing the pitch or perceived tonal quality of the voice or speech. More specifically, since speech waveforms are mostly periodic, pitch periods can be synthesized from two neighboring periods, rather than being directly inserted or removed. (see Applicant's specification, paragraph [0033] and FIGs. 2A-2C).

That is, the Applicant's invention adjusts one or more pitch periods in the audio information of a packet retrieved from the input buffer in an instance where a next packet has not timely arrived to the input buffer. In other words, the length of the packet currently being processed is either extended or reduced to compensate for the delay time of receiving the next packet. By contrast, the Kwan reference solves the problem of creating an entirely new frame to replace a lost frame (i.e., packet). Thus, the Applicant's invention does not create a new frame to replace a missing frame, but rather adjusts the length of the current frame being processed, and the play time (i.e., length) of the next frame that will be processed. Therefore, the Kwan reference fails to teach each and every element of the claimed invention, as arranged in the claim.

As such, the Applicant submits that independent claims 1, 13, 25, 26 and 27 are not anticipated and fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder. Furthermore, claims 2-12, 14-24 and 28-35 depend, either directly or indirectly, from independent claims 1, 13, 25, 26 and 27 and

recite additional features thereof. As such and at least for the same reasons as discussed above, the Applicant submits that these dependent claims are also not anticipated and fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder. Therefore, the Applicant respectfully requests that the Examiner's rejection be withdrawn.

SECONDARY REFERENCES

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to the Applicant's disclosure than the primary references cited in the Office Action. Therefore, the Applicant believes that a detailed discussion of the secondary references is not necessary for a full and complete response to this office action.

CONCLUSION

Thus, the Applicant submits that the pending claims are in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Eamon J. Wall at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

3/1/05

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